

**WILDLIFE ECOLOGY TEAM  
WILDLIFE HABITAT RELATIONSHIPS  
IN WASHINGTON AND OREGON  
FY2011**

February 27, 2012

**Title:**

Demographic characteristics of spotted owls in the Oregon Coast Ranges, 1990–2011.

**Principal Investigator and Organizations:**

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**Study Objective:**

The study objective was to elucidate the population ecology of the spotted owl in the Oregon Coast Ranges, to include age and sex specific birth and death rates, and population trend estimates.

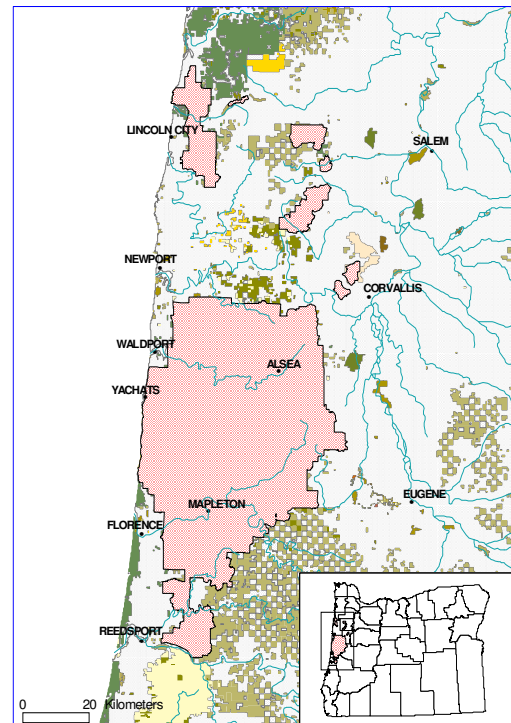
**Potential Benefit or Utility of the Study:**

Information on the demography of spotted owl populations is used to estimate population trends and assess the effects of different management strategies on spotted owls. This study provides data that estimate survival, reproduction, and population parameters of spotted owls relative to landscape features in the Oregon Coast Ranges.

**Research Accomplishments:**

**Study Area and Methods**

The study area was located in the Oregon Coast Ranges, principally on public forest lands administered by the Siuslaw National Forest and the Salem and Eugene Districts of the Bureau of Land Management (Fig. 1). Municipal, state, and private timberlands were interspersed within these federal lands. Within the study area we visited 172

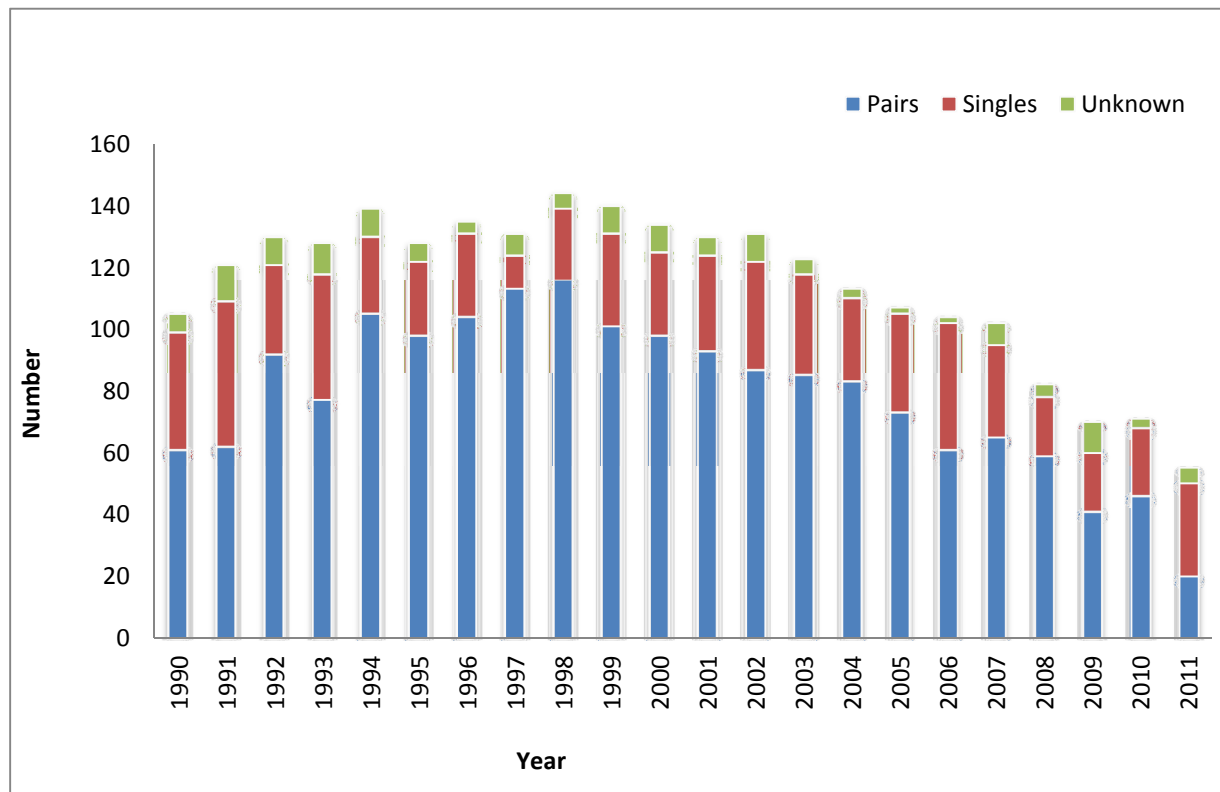


**Figure 1.** Oregon Coast Ranges spotted owl study area.

continuously-monitored spotted owl sites in 2011 to determine residency, nesting status, and reproductive success of all spotted owls detected. We and cooperating surveyors monitored 5 additional sites where spotted owls were initially detected while surveying adjacent demography sites or that were known from previous year's efforts.

### Number of Sites Where Spotted Owls Were Detected

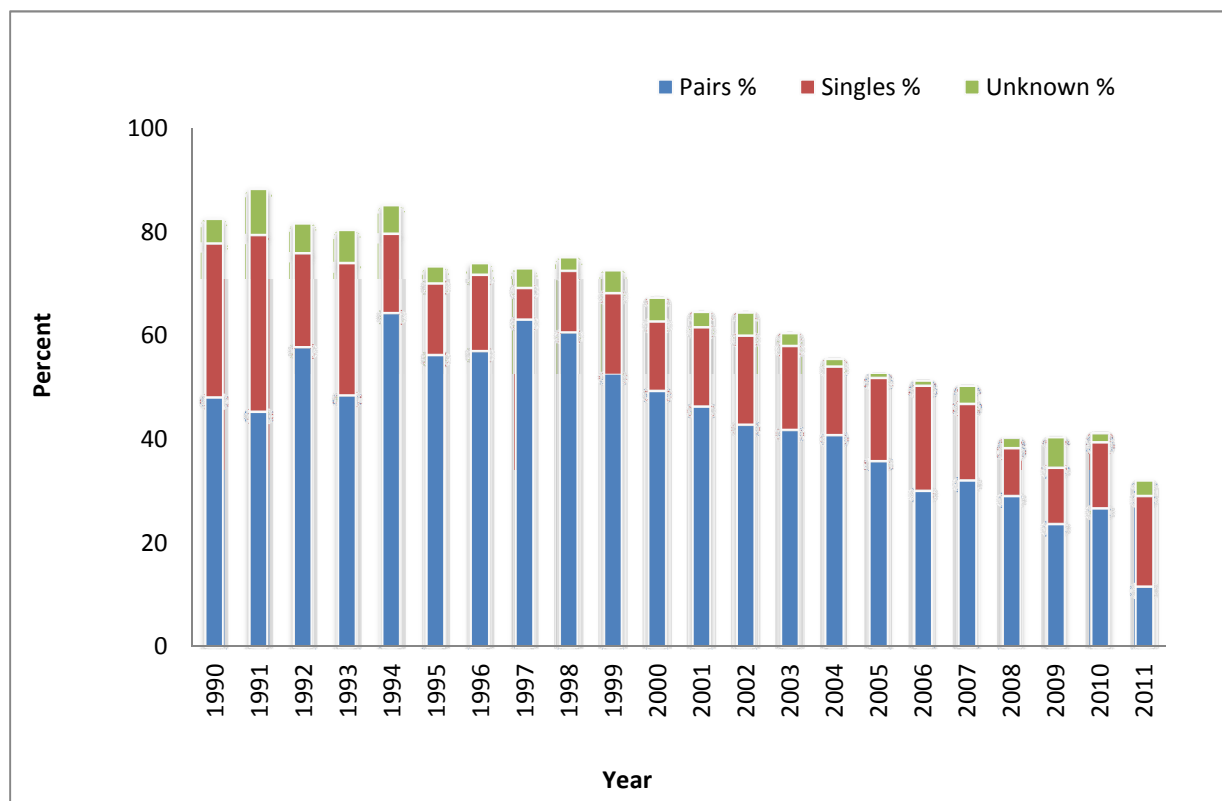
The effort to locate, band, and monitor owls consisted of a combination of surveys conducted by us and cooperators from the Bureau of Land Management, private consulting firms, and timber companies. In 2011, we detected owls at 55 of the 172 sites surveyed (Fig. 2). Owls were detected at 71 sites in 2010 (Fig. 2). We detected 80 non-juvenile spotted owls on the study area. No “extra” individuals were detected at sites where another owl of the same sex had already been identified, a feature of all previous seasons except 1996 (Appendix A). For the first time during the course of the study, no subadults were observed on the study area (Appendix C). In 2011, the number of sites with resident pairs was 20, which was the lowest number counted in the 22 years of the study (Fig. 2, Appendix A). We detected single owls at 30 sites. Male and female spotted owls were detected at 5 sites where pair status was not determined to protocol.



**Figure 2.** Number of sites where spotted owl pairs, singles, or males and females of unknown status were detected on the Oregon Coast Ranges Study Area, 1990–2011.

## Proportion of Sites Where Spotted Owls Were Detected

The percent of sites in which a spotted owl was detected has gradually declined over the course of the study from a high of 88 percent in 1991 to a low of 32 percent in 2011 (Fig. 3, Appendix A). In 2011, pairs were observed at 12 percent of the sites, down from 27 percent in 2010. Single owls were observed at 17 percent of the sites surveyed. The proportion of sites with single owls exceeded the proportion of territories with pairs for the first time during the study. In 2011 there were 5 sites (3% of total) where we heard both a male and female, but could not confirm pair status (Fig. 3, Appendix A).



**Figure 3.** Percent of sites where spotted owl pairs, singles, or males and females of unknown status were detected on the Oregon Coast Ranges Study Area, 1990–2011.

## Number of Owls Marked

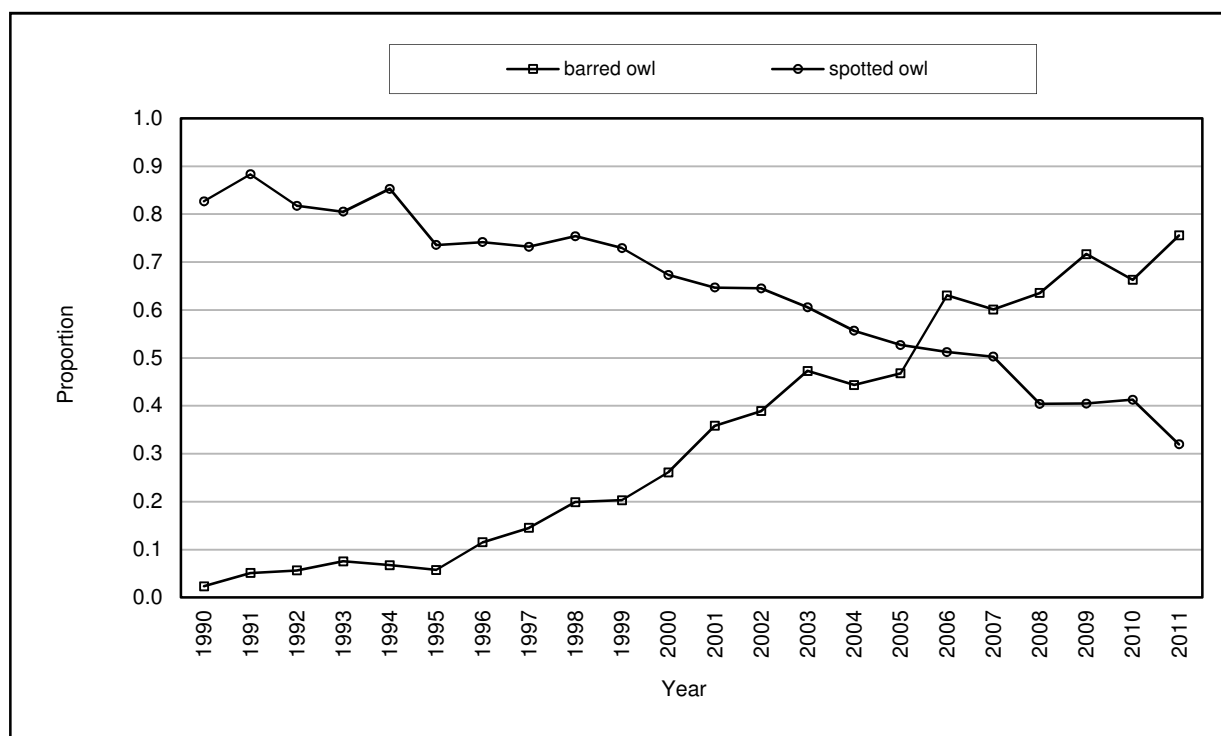
We banded 324 adult, 73 subadult, and 740 juvenile spotted owls on the study area from 1990-2011 (Appendix B). In 2011, we banded 3 spotted owls on the study area, including 2 adult males, and 1 adult female. We replaced the color band on 1 adult male owl originally banded as a juvenile. We recaptured 1 adult female whose identity was in question. We also captured an additional 5 owls on sites adjacent to our demographic study area. Of these, 2 were recaptures of adults that were originally banded as juveniles, and 3 (1 adult, 2 subadults) were captures of unbanded owls. No juveniles were banded on the study area in 2011.

## Emigration and Immigration

We observed 7 owls that dispersed in 2011, all of which were movements within the study area. One movement was an initial re-sighting of an owl banded as a juvenile (juvenile dispersal), and 6 were between site movements of non-juvenile owls (breeding dispersal). We observed no cases of immigration or emigration in 2011.

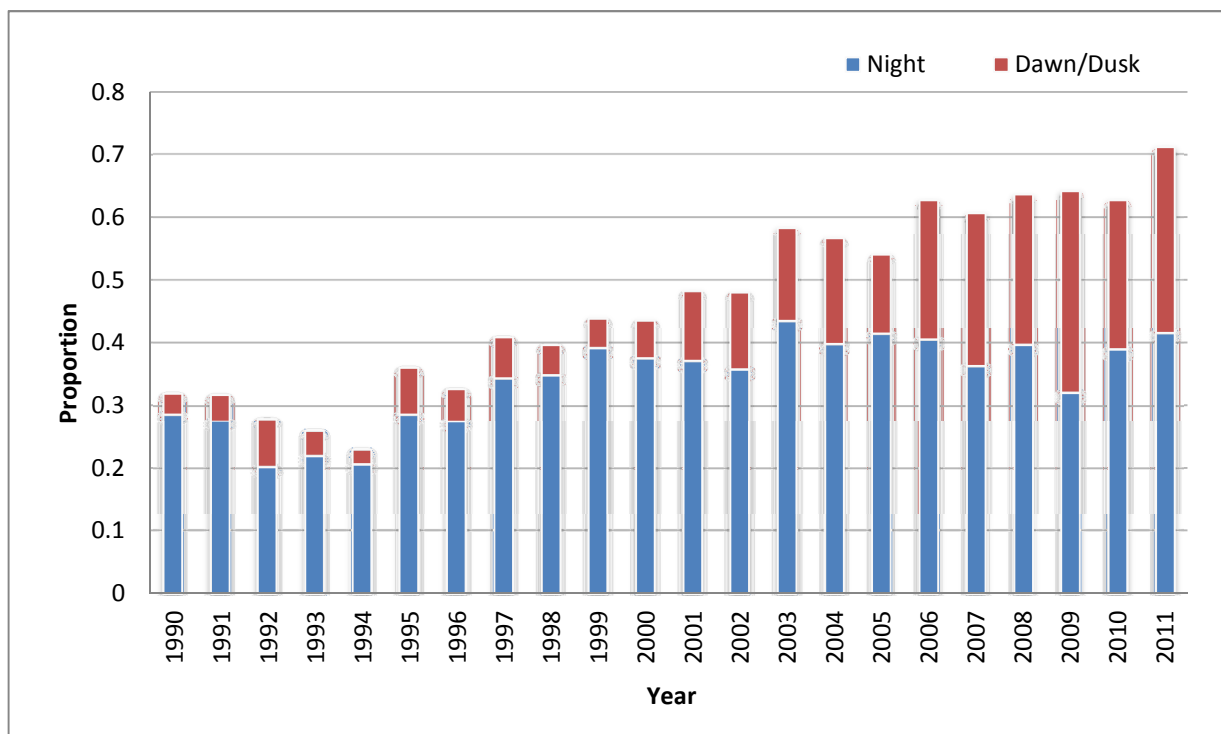
## Barred Owl Detections

The proportion of sites where at least one barred owl was detected within 1.6 km of the year-specific spotted owl activity center has increased steadily throughout the duration of the study, suggesting a steady increase in the barred owl population (Fig. 4, Appendix A). Our survey methods probably underestimated the number of sites with barred owls because we did not specifically target barred owls during our surveys of spotted owls. The continued increase in the proportion of territories where barred owls were detected is likely due to an increase in barred owl numbers, as well as increased



**Figure 4.** Proportion of spotted owl sites in which barred owls and spotted owls were detected on the Oregon Coast Ranges Study Area, 1990–2011.

nighttime survey effort at sites where spotted owls have disappeared (Fig. 5). The proportion of total survey time that included surveys at night had doubled from 0.32 in 1990 to 0.64 in 2009, and increased further to 0.71 in 2011 (Fig. 5).



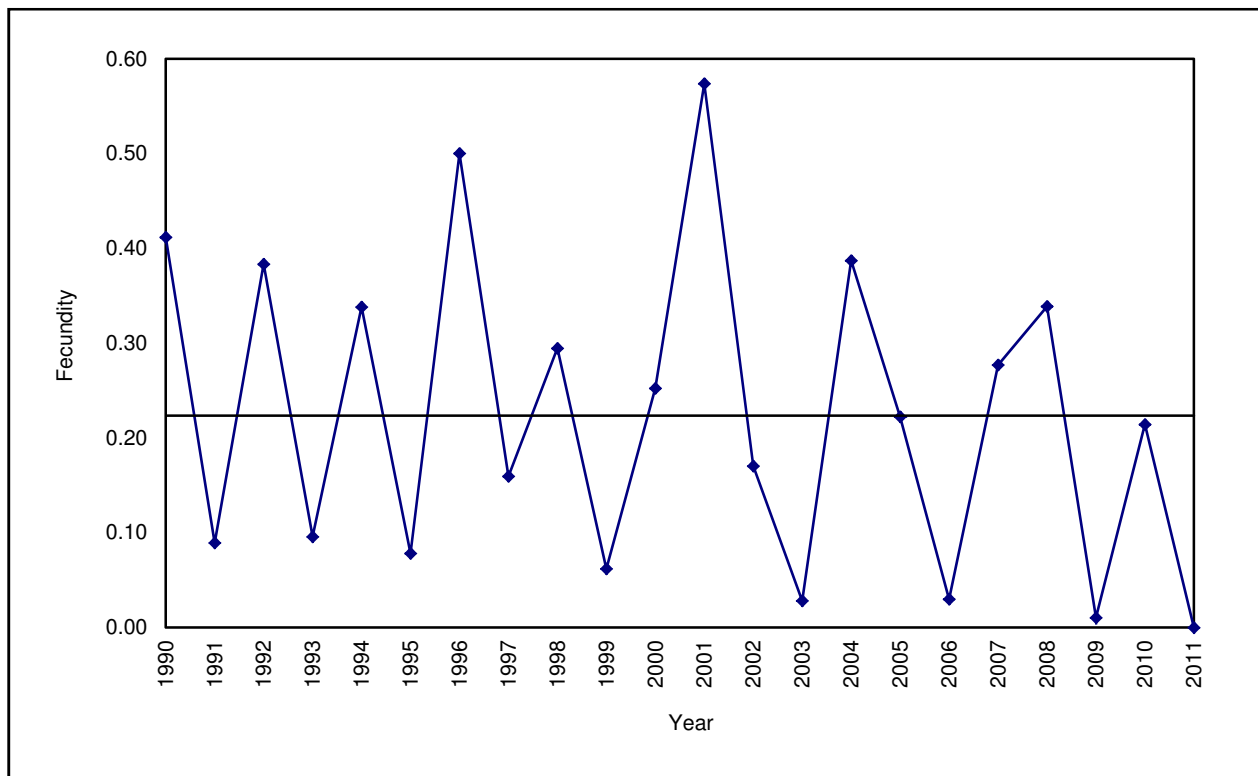
**Figure 5.** Proportion of survey effort conducted at night and dawn or dusk on the Oregon Coast Ranges Study Area, 1990–2011.

## Sex Ratio

Over the course of the study, we have consistently observed a slightly greater proportion of males to females in the territorial population. In 2011 we detected 40 males, 36 females, with a 0.05 proportional difference (Appendix C). The mean difference in the annual proportions of known sex owls detected on the study area in 1990–2011 was 0.08 ( $SE = 0.01$ ; annual range = 0.01–0.17). We suspect that the disproportionate number of males detected is due to sexual differences in detectability rather than a real difference in the population, but this has not been tested.

## Reproduction

We documented the nesting status of 17 females in 2011. None of these females attempted to nest. This was the lowest estimate of nesting over the course of the study (Appendix D). Of the 20 females that were checked for reproduction by 31 August, none had fledged young. This was the first year we observed no fledged young on the study area (Appendix E). The estimated annual fecundity (number of female young produced per female owl) for all non-juvenile females was 0.00 ( $SE = 0.00$ ; Appendix G). The overall mean fecundity estimate from 1990 to 2011 was 0.24 ( $SE = 0.01$ ; Fig. 6, Appendix G).



**Figure 6.** Estimated annual fecundity of female spotted owls on the Oregon Coast Ranges Study Area, 1990-2011. Horizontal line indicates the mean of yearly means ( $0.22 \pm 0.04$  SE).

During the first decade of this study, nesting and reproductive estimates followed a cyclic biennial pattern with higher reproduction in even-numbered years. This pattern was not apparent during the latter decade of the study, during which high, low, and intermediate annual reproductive estimates occurred in both odd and even years (Fig. 6, Appendices D–H).

### **Problems Encountered:**

Road closures and a reduction in forest road maintenance have greatly restricted access and resulted in considerable increase in the number of areas that need to be accessed on foot or by bicycle. Diminished access has led to increased survey times. This situation is not likely to change in the foreseeable future.

### **Research Plans for FY 12:**

- a. Continue demographic study with field work beginning in March 2012.
- b. Continue to GPS historic spotted owl nest trees.

### **Publications and Technology Transfer Activities:**

- a. Conducted field trips with university students and professional organizations.
- b. Provided demographic data to federal, state, and private organizations for their

management activities.

- c. Provided detailed summary information regarding survey results and territory status determinations to the Siuslaw National Forest and the Eugene, Coos Bay, and Salem Districts of the Bureau of Land Management.
- d. Provided updates regarding the current occupancy and reproductive status of owl territories to Oregon Department of Forestry.

**Duration of Study:**

- a. Initiated in FY1990.
- b. Contingent upon future funding. Currently funded through FY 2012.

**Literature Cited:**

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**Appendix A.** Historic spotted owl sites surveyed per year and the number of these with spotted owl pairs, spotted owl singles, unknown status spotted owls, hybrid owls, mixed species pairs, and barred owls in the Oregon Coast Ranges Study Area, 1990–2011. Additional same-sex individuals at a territory were excluded from the counts of pairs, singles, and unknown status owls.

Year	Sites Surveyed	Pairs <sup>1</sup>	Singles <sup>2</sup>	Unknown status <sup>3</sup>	Additional owls <sup>4</sup>	Additional owl sites	Hybrid owls <sup>5</sup>	Mixed spp. pairs <sup>6</sup>	Barred owls <sup>7</sup>
1990	127	61	38	6	4	4	0	0	3
1991	137	62	47	12	4	3	0	0	7
1992	159	92	29	9	4	4	0	0	9
1993	159	77	41	10	1	1	0	0	12
1994	163	105	25	9	5	5	0	1	11
1995	174	98	24	6	2	2	0	0	10
1996	182	104	27	4	0	0	0	2	21
1997	179	113	11	7	3	2	0	1	26
1998	191	116	23	5	4	4	1	1	38
1999	192	101	30	9	5	5	1	1	39
2000	199	98	27	9	7	7	1	1	52
2001	201	93	31	6	3	3	0	0	72
2002	203	87	35	9	4	4	0	0	79
2003	203	85	33	5	8	7	1	0	96
2004	203	83	27	3	10	8	2	2	90
2005	203	73	32	2	3	3	1	1	95
2006	203	61	41	2	2	2	2	1	128
2007	203	65	30	7	7	6	0	0	122
2008	203	59	19	4	1	1	1	1	129
2009	173	41	19	10	3	3	2	2	124
2010	172	46	22	3	2	2	1	1	114
2011	172	20	30	5	0	0	1	0	130

<sup>1</sup>Sites in which a spotted owl pair was present. Spotted owls paired with barred owls or hybrid owls were categorized as singles (9 cases over all years).

<sup>2</sup>Sites in which a single spotted owl was present. If more than a single spotted owl was detected but the birds were of the same sex, it was classified as a single territory.

<sup>3</sup>Unknown status sites had detections of both a male and a female spotted owl, but the birds did not meet pair status.

<sup>4</sup>Additional owls were cases in which more than a single spotted owl of the same sex was detected.

<sup>5</sup>Hybrid owls were considered present if they were detected within the site boundary. Cases include: single hybrid owls (2), hybrid males at a territory occupied by a spotted owl (2), spotted owls paired with hybrid owls (4), hybrid owls paired with barred owls (5); a hybrid male paired with a barred owl at a territory occupied by a spotted owl (1).

<sup>6</sup>Mixed species pairs included territories in which at least one of the birds had some spotted owl ancestry and it was not a straight-forward spotted owl pair (e.g., spotted owl–hybrid owl, hybrid–barred owl, spotted owl–barred owl, etc.), but pair status was established to protocol (15 cases over all years).

<sup>7</sup>Barred owls were considered present if one was detected within 1.6 km of the most recent preceding spotted owl annual activity center.



**Appendix B.** Number of spotted owls banded on the Oregon Coast Ranges Study Area, 1990–2011.

Year	Adults		Subadults		Juveniles
	Males	Females	Males	Females	
1990	43	30	7	3	32
1991	25	24	2	3	7
1992	28	30	4	4	61
1993	6	8	1	0	13
1994	15	18	3	1	62
1995	5	8	1	2	13
1996	6	1	4	4	100
1997	3	6	3	0	36
1998	2	2	5	1	57
1999	3	5	1	1	10
2000	4	9	1	0	51
2001	1	1	0	3	97
2002	4	1	2	3	28
2003	2	1	1	2	5
2004	4	1	0	2	59
2005	3	2	1	0	24
2006	1	4	1	2	2
2007	3	3	0	0	31
2008	3	2	0	0	36
2009	2	1	3	0	1
2010	1	0	1	1	15
2011	2	1	0	0	0
Total:	166	158	41	32	740

**Appendix C.** Number of spotted owls detected on historic sites in the Oregon Coast Ranges Study Area, 1990–2011.

Year	Adults		Subadults		Age unk			Juveniles
	Males	Females	Males	Females	Males	Females	Sex Unk	
1990	54	40	9	4	33	27	9	40
1991	78	61	7	3	31	18	1	10
1992	90	88	6	6	22	17	6	70
1993	85	79	4	0	29	16	3	14
1994	100	101	12	8	23	12	2	71
1995	110	97	3	3	15	6	0	15
1996	108	94	9	11	12	8	1	107
1997	115	109	8	6	6	9	1	37
1998	115	106	16	10	12	10	0	68
1999	115	105	3	5	15	7	5	13
2000	118	101	5	4	11	7	2	51
2001	106	87	3	4	17	12	3	107
2002	93	77	7	10	27	14	3	31
2003	95	81	7	7	22	5	4	5
2004	91	83	1	4	16	11	3	65
2005	74	76	6	5	11	9	4	32
2006	70	63	2	3	16	10	5	2
2007	70	63	1	2	18	18	9	33
2008	62	52	1	2	15	13	1	38
2009	45	46	3	1	12	12	5	1
2010	47	43	4	1	13	10	4	19
2011	25	24	0	0	15	12	4	0

**Appendix D.** Proportion of female spotted owls that nested on the Oregon Coast Ranges Study, 1990–2011. Estimates were calculated for paired or single females whose nesting status was determined by 1 June.

Year	n			Nesting Adults		Nesting Subadults		Combined	
	Adults	Subadults	Unk	Prop.	95% <i>CI</i> .	Prop.	95% <i>CI</i> .	Prop.	95% <i>CI</i> .
1990	19	2	7	0.89	0.67-0.99	1.00	0.16-1.00	0.86	0.67-0.96
1991	39	0	0	0.15	0.06-0.31	—	—	0.15	0.06-0.31
1992	66	6	4	0.71	0.59-0.82	0.50	0.12-0.88	0.68	0.57-0.79
1993	66	0	2	0.24	0.15-0.36	—	—	0.25	0.15-0.37
1994	85	5	2	0.67	0.56-0.77	0.40	0.05-0.85	0.64	0.53-0.74
1995	85	3	0	0.16	0.09-0.26	0.00	0.00-0.71	0.16	0.09-0.25
1996	84	8	3	0.82	0.72-0.90	0.63	0.24-0.91	0.80	0.71-0.88
1997	100	6	0	0.42	0.32-0.52	0.00	0.00-0.46	0.40	0.30-0.50
1998	96	8	3	0.61	0.51-0.71	0.25	0.03-0.65	0.60	0.50-0.69
1999	91	2	1	0.18	0.10-0.27	0.00	0.00-0.84	0.17	0.10-0.26
2000	85	2	0	0.54	0.43-0.65	0.50	0.01-0.99	0.54	0.43-0.65
2001	75	2	2	0.87	0.77-0.93	0.00	0.00-0.84	0.85	0.75-0.92
2002	64	8	4	0.55	0.42-0.67	0.00	0.00-0.37	0.49	0.37-0.60
2003	64	5	0	0.06	0.02-0.15	0.00	0.00-0.52	0.06	0.02-0.14
2004	66	2	2	0.79	0.67-0.88	0.50	0.01-0.99	0.79	0.67-0.87
2005	71	4	1	0.46	0.35-0.59	0.25	0.01-0.81	0.45	0.33-0.57
2006	47	2	1	0.06	0.01-0.18	0.00	0.00-0.84	0.06	0.01-0.17
2007	48	1	0	0.63	0.47-0.76	0.00	0.00-0.98	0.61	0.46-0.75
2008	52	1	5	0.73	0.59-0.84	0.00	0.00-0.98	0.72	0.59-0.83
2009	34	1	0	0.06	0.01-0.20	0.00	0.00-0.98	0.06	0.01-0.19
2010	33	2	2	0.88	0.72-0.97	0.00	0.00-0.84	0.84	0.68-0.94
2011	17	0	0	0.00	0.00-0.20	—	—	0.00	0.00-0.20
Overall:	1387	70	39	0.49	0.46-0.52	0.24	0.15-0.36	0.48	0.46-0.51

**Appendix E.** Proportion of female spotted owls that fledged young on the Oregon Coast Ranges Study Area, 1990-2011. Estimates were calculated for paired or single females for which the number of young fledged was determined before 31 August.

Year	n			Adults		Subadults		Combined	
	Adults	Subadults	Unk	Prop.	95% CI	Prop.	95% CI	Prop.	95% CI
1990	33	4	14	0.70	0.51-0.84	0.75	0.19-0.99	0.63	0.48-0.76
1991	53	1	2	0.11	0.04-0.23	0.00	0.00-0.98	0.13	0.05-0.24
1992	80	7	3	0.54	0.42-0.65	0.14	0.00-0.58	0.49	0.38-0.60
1993	70	0	3	0.11	0.05-0.21	—	—	0.12	0.06-0.22
1994	96	6	3	0.48	0.38-0.58	0.00	0.00-0.46	0.45	0.35-0.55
1995	92	3	1	0.10	0.05-0.18	0.00	0.00-0.71	0.09	0.04-0.17
1996	93	10	6	0.67	0.56-0.76	0.40	0.12-0.74	0.63	0.54-0.72
1997	109	6	1	0.24	0.16-0.33	0.00	0.00-0.46	0.23	0.16-0.32
1998	100	9	3	0.41	0.31-0.51	0.11	0.00-0.48	0.38	0.29-0.47
1999	100	3	2	0.08	0.04-0.15	0.00	0.00-0.71	0.09	0.04-0.16
2000	97	4	0	0.33	0.24-0.43	0.25	0.01-0.81	0.33	0.24-0.43
2001	87	4	4	0.68	0.57-0.77	0.00	0.00-0.60	0.65	0.55-0.75
2002	75	9	4	0.27	0.17-0.38	0.00	0.00-0.34	0.24	0.15-0.34
2003	80	8	1	0.05	0.01-0.12	0.00	0.00-0.37	0.04	0.01-0.11
2004	86	2	5	0.51	0.40-0.62	0.00	0.00-0.84	0.49	0.39-0.60
2005	75	4	2	0.33	0.23-0.45	0.00	0.00-0.60	0.31	0.21-0.42
2006	63	3	1	0.03	0.00-0.11	0.00	0.00-0.71	0.03	0.00-0.10
2007	63	2	0	0.38	0.26-0.51	0.00	0.00-0.84	0.37	0.25-0.50
2008	55	2	5	0.47	0.34-0.61	0.00	0.00-0.84	0.42	0.30-0.55
2009	46	2	0	0.02	0.00-0.12	0.00	0.00-0.84	0.02	0.00-0.11
2010	43	2	4	0.30	0.17-0.46	0.00	0.00-0.84	0.31	0.18-0.45
2011	20	0	0	0.00	0.00-0.17	—	—	0.00	0.00-0.17
Overall:	1616	91	64	0.32	0.30-0.35	0.11	0.05-0.19	0.31	0.29-0.33

**Appendix F.** Proportion of nesting female spotted owls that fledged young on the Oregon Coast Ranges Study Area, 1990-2011. Estimates were calculated for paired or single females whose nesting status was determined by 1 June.

Year	n			Adults		Subadults		Combined	
	Adults	Subadults	Unk	Prop.	95% CI	Prop.	95% CI	Prop.	95% CI
1990	16	2	5	0.81	0.54-0.96	1.00	0.16-1.00	0.74	0.52-0.90
1991	6	0	0	0.67	0.22-0.96	—	—	0.67	0.22-0.96
1992	47	3	1	0.83	0.69-0.92	0.33	0.01-0.91	0.78	0.65-0.89
1993	15	0	1	0.53	0.27-0.79	—	—	0.50	0.25-0.75
1994	57	2	0	0.75	0.62-0.86	0.00	0.00-0.84	0.73	0.60-0.84
1995	14	0	0	0.64	0.35-0.87	—	—	0.64	0.35-0.87
1996	69	5	2	0.80	0.68-0.88	0.60	0.15-0.95	0.78	0.67-0.86
1997	42	0	0	0.62	0.46-0.76	—	—	0.62	0.46-0.76
1998	59	2	3	0.69	0.56-0.81	0.50	0.01-0.99	0.66	0.53-0.77
1999	16	0	0	0.50	0.25-0.75	—	—	0.50	0.25-0.75
2000	46	1	0	0.65	0.50-0.79	1.00	0.03-1.00	0.66	0.51-0.79
2001	65	0	2	0.83	0.72-0.91	—	—	0.82	0.71-0.90
2002	35	0	2	0.54	0.37-0.71	—	—	0.54	0.37-0.71
2003	4	0	0	1.00	0.40-1.00	—	—	1.00	0.40-1.00
2004	52	1	2	0.79	0.65-0.89	0.00	0.00-0.98	0.75	0.61-0.85
2005	31	1	0	0.77	0.59-0.90	0.00	0.00-0.98	0.75	0.57-0.89
2006	3	0	0	0.67	0.09-0.99	—	—	0.67	0.09-0.99
2007	29	0	0	0.76	0.56-0.90	—	—	0.76	0.56-0.90
2008	37	0	3	0.65	0.47-0.80	—	—	0.60	0.43-0.75
2009	2	0	0	0.50	0.01-0.99	—	—	0.50	0.01-0.99
2010	27	0	2	0.41	0.22-0.61	—	—	0.41	0.24-0.61
2011	0	0	0	—	—	—	—	—	—
Overall:	672	17	23	0.71	0.68-0.75	0.47	0.23-0.72	0.69	0.66-0.72

**Appendix G.** Estimated mean fecundity ( $\hat{b}$ ) of female spotted owls on the Oregon Coast Ranges Study Area, 1990-2011. Fecundity was defined as the number of female young produced per female, assuming a 1:1 sex ratio of offspring. Estimates were calculated for any female for which the number of young fledged was determined before 31 August.

Year	n			Adults		Subadults		Combined	
	Adults	Subadults	Unk	$\hat{b}_A$	SE	$\hat{b}_S$	SE	$\hat{b}$	SE
1990	33	4	14	0.47	0.07	0.38	0.13	0.41	0.05
1991	53	1	2	0.08	0.03	0.00	—	0.09	0.03
1992	80	7	3	0.42	0.05	0.14	0.14	0.38	0.05
1993	70	0	3	0.09	0.03	—	—	0.10	0.03
1994	96	6	3	0.36	0.04	0.00	0.00	0.34	0.04
1995	92	3	1	0.08	0.03	0.00	0.00	0.08	0.03
1996	93	10	6	0.52	0.04	0.35	0.15	0.50	0.04
1997	109	6	1	0.17	0.03	0.00	0.00	0.16	0.03
1998	100	9	3	0.32	0.04	0.11	0.11	0.29	0.04
1999	100	3	2	0.06	0.02	0.00	0.00	0.06	0.02
2000	97	4	0	0.26	0.04	0.13	0.13	0.25	0.04
2001	87	4	4	0.59	0.05	0.00	0.00	0.57	0.05
2002	75	9	4	0.19	0.04	0.00	0.00	0.17	0.04
2003	80	8	1	0.03	0.02	0.00	0.00	0.03	0.01
2004	86	2	5	0.40	0.05	0.00	0.00	0.39	0.04
2005	75	4	2	0.24	0.04	0.00	0.00	0.22	0.04
2006	63	3	1	0.03	0.02	0.00	0.00	0.03	0.02
2007	63	2	0	0.29	0.05	0.00	0.00	0.28	0.05
2008	55	2	5	0.38	0.06	0.00	0.00	0.34	0.06
2009	46	2	0	0.01	0.01	0.00	0.00	0.01	0.01
2010	43	2	4	0.22	0.06	0.00	0.00	0.21	0.05
2011	20	0	0	0.00	0.00	—	—	0.00	0.00
Overall:	1616	91	64	0.25	0.01	0.08	0.03	0.24	0.01

**Appendix H.** Mean brood size of female spotted owls on the Oregon Coast Ranges Study Area, 1990-2011. Mean brood size was defined as the number of young produced per female that fledged at least one young before 31 August.

Year	n			Adults		Subadults		Combined	
	Adults	Subadults	Unk	$\bar{x}$	SE	$\bar{x}$	SE	$\bar{x}$	SE
1990	23	3	6	1.35	0.10	1.00	0.00	1.31	0.08
1991	6	0	1	1.50	0.22	—	—	1.43	0.20
1992	43	1	0	1.56	0.08	2.00	—	1.57	0.08
1993	8	0	1	1.50	0.19	—	—	1.56	0.18
1994	46	0	1	1.52	0.07	—	—	1.51	0.07
1995	9	0	0	1.67	0.17	—	—	1.67	0.17
1996	62	4	3	1.56	0.06	1.75	0.25	1.58	0.06
1997	26	0	1	1.38	0.10	—	—	1.37	0.09
1998	41	1	0	1.56	0.09	2.00	—	1.57	0.08
1999	8	0	1	1.50	0.19	—	—	1.44	0.18
2000	32	1	0	1.56	0.09	1.00	—	1.55	0.09
2001	59	0	3	1.75	0.06	—	—	1.76	0.06
2002	20	0	1	1.45	0.11	—	—	1.43	0.11
2003	4	0	0	1.25	0.25	—	—	1.25	0.25
2004	44	0	2	1.57	0.08	—	—	1.57	0.07
2005	25	0	0	1.44	0.10	—	—	1.44	0.10
2006	2	0	0	2.00	0.00	—	—	2.00	0.00
2007	24	0	0	1.50	0.10	—	—	1.50	0.10
2008	26	0	0	1.62	0.11	—	—	1.62	0.11
2009	1	0	0	1.00	—	—	—	1.00	—
2010	13	0	2	1.46	0.14	—	—	1.40	0.13
2011	0	0	0	—	—	—	—	—	—
Overall:	522	10	22	1.55	0.02	1.50	0.17	1.54	0.02